UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,710	04/08/2009	Christian Wengerter	L7725.06106	8631

52989 7590 02/16/2011

Dickinson Wright PLLC
James E. Ledbetter, Esq.
International Square
1875 Eye Street, N.W., Suite 1200
Washington, DC 20006

EXAMINER	
NGUYEN, DAVID Q	
ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
02/16/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,710	WENGERTER ET AL.	
	Examiner	Art Unit	
	DAVID Q. NGUYEN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *45,47,48,50,51,53-76,78 and 80-83* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *74 and 76* is/are allowed.

6)☒ Claim(s) *45,47,48,50,51,53-55,58-67,69-73,75 and 80-83* is/are rejected.

7)☒ Claim(s) *56,57,68 and 78* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 45, 47-48, 50-51, 53-76, 78, and 80-83 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 45 and 51 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claim recite a series of steps or acts to be performed, a statutory "process' under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Process' under 35 U.S.C 101"). The instant claim neither transforms underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

In the present case, claims 45 and 51 only recite an abstract idea. Claim 45 recites steps of grouping said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster, determining a plurality of transmission power levels for each of the radio cells of

said cell cluster, and assigning the plurality of transmission power levels to the subcarrier block sets of one of the radio ceils of the cell cluster by taking into account the assignment of the plurality of transmission power levels to the subcarrier block sets of the other radio cells of the cell cluster. The recited steps of grouping and assignment do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user. These steps only constitute an idea of how to balance the distribution of interference between radio cells.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, none of the recited steps are directed to anything in the technological arts. Looking at the claim as a whole, nothing the body of the claim recites any structure or functionality to suggest that a device or an apparatus performing these steps.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 45, 47-48, 51, 53-55, 69, 71-73, 75 and 81-83 are rejected under 35 U.S.C. 102(b) as being anticipated by Yu et al. (US 6,047,186).

Regarding claim 45, Yu et al. disclose a method for balancing the distribution of interference between radio cells in a wireless communication system, the system comprising a plurality of radio ceils in which a plurality of subcarrier blocks is used for communication,

wherein a number of adjacent radio cells build a cell cluster, wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets, and wherein each subcanier block has the same subcarriers, the method comprising:

grouping said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster (col. 5, lines 1-5; each of the plurality of cells is subdivided into sectors, and wherein the method and system assign specific groups of channels drawn from the plurality of groups of channels to each sectors),

determining a plurality of transmission power ranges for each of the radio cell of said cell cluster (col. 5, lines 8-14; One or more pairs of the sectors within the defined geographic area wherein a weak connection zone exits are determined. The defined geographic area is decomposed into two or more sub-areas composed of one or more of the sectors and wherein each sub-area is isolated from other sub-areas by the determined one or more pairs of sectors having a weak connection zone), and

assigning the plurality of transmission power levels to the subcarrier block sets of one of the radio ceils of the cell cluster by taking into account the assignment of the plurality of transmission power levels to the subcarrier block sets of the other radio cells of the cell cluster (col. 5, lines 15-18 and 21-24; Frequency groups are assigned to each sector within the first selected sub-area such that signal to noise ratio is optimized across the first selected sub-area.).

Regarding claim 51, Yu et al. disclose a method for balancing the distribution of interference between radio cells in a wireless communication system, the system comprising a plurality of radio cells, each radio cell comprising at least two sectors, in each of which a plurality of subcarrier blocks is used for communication, wherein a sector of a radio cell and its

adjacent sectors in neighboring radio cells build a sector cluster, the sector cluster comprising corresponding subcarrier block sets having the same subcarrier blocks, each subcarrier block comprising a plurality of subcarriers, the method comprising the steps of:

grouping said subcarrier blocks into a plurality of subcarrier block sets in each of the sectors of each radio cell of said sector cluster (col. 5, lines 1-5; each of the plurality of cells is subdivided into sectors, and wherein the method and system assign specific groups of channels drawn from the plurality of groups of channels to each sectors),

determining a plurality of transmission power levels for each sector of each radio cell of the sector cluster (col. 5, lines 8-14; One or more pairs of the sectors within the defined geographic area wherein a weak connection zone exits are determined. The defined geographic area is decomposed into two or more sub-areas composed of one or more of the sectors and wherein each sub-area is isolated from other sub-areas by the determined one or more pairs of sectors having a weak connection zone), and

assigning the plurality of transmission power levels to the plurality of subcarrier block sets of one of the respective sectors of the sector cluster, by taking into account the assignment of the plurality of transmission power levels to the subcarrier block sets of the other sectors of the sector cluster (col. 5, lines 15-18 and 21-24; Frequency groups are assigned to each sector within the first selected sub-area such that signal to noise ratio is optimized across the first selected sub-area.).

Regarding claim 69, Yu et al. disclose a base station for use in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein a number of adjacent radio cells build a cell cluster, and

wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers, the base station comprising:

a processing unit configured to group said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster (col. 5, lines 1-5; each of the plurality of cells is subdivided into sectors, and wherein the method and system assign specific groups of channels drawn from the plurality of groups of channels to each sectors),

a determination unit configured to determine a plurality of transmission power levels for each of the radio cells of said cell cluster (col. 5, lines 8-14; One or more pairs of the sectors within the defined geographic area wherein a weak connection zone exits are determined. The defined geographic area is decomposed into two or more sub-areas composed of one or more of the sectors and wherein each sub-area is isolated from other sub-areas by the determined one or more pairs of sectors having a weak connection zone), and

an assignment unit configured to assign the plurality of transmission power levels to the subcarrier block sets of one of the radio cells of the ceil cluster by taking into account the assignment of the plurality of transmission power levels to the subcarrier block sets of the other radio cells of the cell cluster (col. 5, lines 15-18 and 21-24; Frequency groups are assigned to each sector within the first selected sub-area such that signal to noise ratio is optimized across the first selected sub-area.).

Regarding claim 73, Yu et al. disclose a base station for use in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein N adjacent radio cells build a cell cluster, N being an integer

number of 2 or more, and wherein the N radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers, the base station comprising:

a processing unit configured to group said subcarrier blocks into N subcarrier block sets in each radio ceil of the cell cluster, wherein the radio ceils of the cell duster each comprise corresponding subcarrier block sets having the same subcarriers (col. 5, lines 1-5; each of the plurality of cells is subdivided into sectors, and wherein the method and system assign specific groups of channels drawn from the plurality of groups of channels to each sectors),

a determining unit configured to determine N transmission power levels for each of the radio cells of said cell cluster (col. 5, lines 8-14; One or more pairs of the sectors within the defined geographic area wherein a weak connection zone exits are determined. The defined geographic area is decomposed into two or more sub-areas composed of one or more of the sectors and wherein each sub-area is isolated from other sub-areas by the determined one or more pairs of sectors having a weak connection zone), and

an assignment unit configured to assign the N transmission power levels to the N subcarrier block sets of radio cells of the cell cluster, such that:
in each radio cell of the cell cluster, each of the N transmission power levels in the respective radio cell of the cell cluster is assigned to one of the N subcarrier block sets of said respective radio cell of the celt cluster, and each of the N transmission power levels is assigned to one subcarrier block set of corresponding subcarrier block sets within the radio cells of the cell cluster (col. 5, lines 15-18 and 21-24; Frequency groups are assigned to each sector within the

first selected sub-area such that signal to noise ratio is optimized across the first selected sub-area.).

Regarding claim 75, Yu et al. disclose base station for use in a wireless communication system, the system comprising a plurality of radio cells, each radio cell comprising at least two sectors, in each of which a plurality of subcarrier blocks is used for communication, wherein a sector of a radio cell and its adjacent sectors in neighboring radio cells build a sector cluster, the sector cluster comprising corresponding subcarrier block sets having the same subcarrier blocks, each subcanier block comprising a plurality of subcarriers, the base station comprising:

a processing unit configured to group said subcarrier blocks into N subcarrier block sets in each of the sectors of each radio cell of said cluster, wherein each sector of a radio cell has N-1 adjacent sectors in the other radio cells of the cell cluster, and wherein a sector of a radio cell and its adjacent sectors in said other radio cells each comprise corresponding subcarrier block sets having the same subcarriers, N being an integer number of 2 or more (col. 5, lines 1-5; each of the plurality of cells is subdivided into sectors, and wherein the method and system assign specific groups of channels drawn from the plurality of groups of channels to each sectors),

a determination unit configured to determine N transmission power levels for each sector of each radio cell of the cell cluster (col. 5, lines 8-14; One or more pairs of the sectors within the defined geographic area wherein a weak connection zone exits are determined. The defined geographic area is decomposed into two or more sub-areas composed of one or more of the sectors and wherein each sub-area is isolated from other sub-areas by the determined one or more pairs of sectors having a weak connection zone), and

an assignment unit configured to assign the N transmission power levels to the N subcarrier block sets of a sector of a radio cell and its adjacent sectors of said other radio cells, such that:

in each sector of the sector cluster, each of the N transmission power levels in the respective sector of the sector cluster is assigned to one of the N subcan'ier block sets of said respective sector of the sector cluster, and each of the N transrnission power Ievels is assigned to one subcarrier block set of corresponding sectors of the sector cluster (col. 5, lines 15-18 and 21-24; Frequency groups are assigned to each sector within the first selected sub-area such that signal to noise ratio is optimized across the first selected sub-area.).

Regarding claim 81, Yu et al. disclose a base station for use in a wireless communication system, the system comprising a plurality of radio cells, each radio cell comprising at least two sectors in each of which a plurality of subcarrier blocks is used for communication, wherein a sector of a radio cell and its adjacent sectors in neighboring radio cells build a sector cluster, the sector cluster comprising corresponding subcarrier block sets having the same subcarrier blocks, each subcarrier block comprising a plurality of subcarriers, the base station comprising:
a grouping unit configured to group said subcarrier blocks into a plurality of subcarrier block sets in each of the sectors of said sector cluster (col. 5, lines 1-5; each of the plurality of cells is subdivided into sectors, and wherein the method and system assign specific groups of channels drawn from the plurality of groups of channels to each sectors),

a determination unit configured to determine a plurality of transmission power levels for each sector of the sector cluster (col. 5, lines 8-14; One or more pairs of the sectors within the defined geographic area wherein a weak connection zone exits are determined. The defined geographic area is decomposed into two or more sub-areas composed of one or more of the

sectors and wherein each sub-area is isolated from other sub-areas by the determined one or more pairs of sectors having a weak connection zone), and an assignment unit configured to assign the plurality of transmission power levels to the plurality of subcarrier block sets of one of the respective sectors of the sector cluster, by taking into account the assignment of the plurality of transmission power levels to the subcarrier block sets of the other sectors of the sector cluster (col. 5, lines 15-18 and 21-24; Frequency groups are assigned to each sector within the first selected sub-area such that signal to noise ratio is optimized across the first selected sub-area.).

Regarding claim 47, Yu discloses wherein said plurality transmission power ranges is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single radio cell, there is a mapping of each of said plurality of transmission power ranges to a subcarrier block set of said single radio cell, and there is a mapping of each of said plurality of transmission power ranges to one of said corresponding subcarrier block sets in the radio cells of said cell cluster (col. 5, lines 1-44).

Regarding claim 48, Yu discloses wherein said plurality transmission power ranges is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single radio cell, there is a mapping of each of said plurality of subcarrier block sets of said single radio cell to a transmission power range, and there is a mapping of each of said corresponding subcarrier block sets in the radio cells of said cell cluster to one of said plurality of transmission power ranges (see col. 5, lines 1-44).

Regarding claims 53 and 82, Yu discloses wherein said plurality of transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single sector of a radio cell, there is a mapping of each of said plurality of transmission power levels to

a subcarrier block set of said sector, and there is a mapping of each of said plurality of transmission power levels to one of said corresponding subcarrier block sets in said sector cluster (see col. 5, lines 1-44).

Regarding claims 54-55 and 83, Yu discloses wherein said plurality transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single sector of a radio cell, there is a mapping of each of said plurality of subcarrier block sets of said sector to a transmission power level, and there is a mapping of each of said plurality of said corresponding subcarrier block sets in said sector cluster to one transmission power level (see col. 5, lines 1-44); wherein the mapping is a unique mapping (see col. 5, lines 1-44).

Regarding claim 71, Yu discloses wherein said plurality of transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single radio cell, there is a mapping of each of said plurality of transmission power levels to a subcarrier block set of said single radio cell (col. 5, lines 1-44), and there is a mapping of each of said plurality of transmission power levels to one of said corresponding subcarrier block sets in the radio cells of said cell cluster (col. 5, lines 1-44); wherein the mapping is a unique mapping (col. 5, lines 1-44).

Regarding claim 72, Yu discloses wherein said plurality transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single radio cell, there is a mapping of each of said plurality of subcarrier block sets of said single radio cell to a transmission power level (see col. 5, lines 1-44), and there is a mapping of each of said corresponding subcarrier block sets in the radio cells of said cell cluster to one of said plurality of transmission power levels (see col. 5, lines 1-44).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 50, 58-67, 70 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,047,186) in view of Jang (US 5,579,373).

Regarding claim 50, Yu does not mention wherein the offsets between the transmission power levels in a radio cell vary between the radio cells. However, Jang discloses wherein the offsets between the transmission power levels in a radio cell vary between the radio cells (see col. 7, lines 20-30, table 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to improve quality in the wireless system.

Regarding claim 58, Yu does not mention wherein the transmission power levels in different radio cells/sectors vary. Jang discloses wherein the transmission power levels in different radio cells/sectors vary (see col. 7, lines 20-30, table 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to improve quality in the wireless system.

Regarding claims 59 and 70, Yu does not mention wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarriers; wherein the subcarrier block set size of corresponding subcarrier block sets is equal. Jang discloses

wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarriers (see col. 2, line 55 to col. 3, line 14; frequency reuse pattern); wherein the subcarrier block set size of corresponding subcarrier block sets is equal (see fig. 12B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to avoid cochannel interference in order to improve quality in the wireless system.

Regarding claim 60, Yu does not mention reconfiguring the subcarrier block sets in a radio cell/sector. Jang discloses reconfiguring the subcarrier block sets in a radio cell/sector (see col. 8, lines 36-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to avoid cochannel interference in order to improve quality in the wireless system.

Regarding claims 61-64, Yu does not mention reconfiguring the transmission power levels in a radio cell/sector; wherein the reconfiguration of the power levels and/or the subcarrier block sets in the radio cell is performed in accordance with the other radio cells of a cell cluster wherein the reconfiguration of the power levels and/or the subcarrier block sets in the sector is performed in accordance with the other sectors of a sector cluster; wherein the reconfiguration is based on channel quality measurements. Jang discloses reconfiguring the transmission power levels in a radio cell/sector (see col. 8, lines 36-53); wherein the reconfiguration of the power levels and/or the subcarrier block sets in the radio cell is performed in accordance with the other radio cells of a cell cluster (see col. 2, lines 54-67 and col. 8, lines 36-53); wherein the reconfiguration of the power levels and/or the subcarrier block sets in the sector is performed in accordance with the other sectors of a sector cluster (see col. 2, lines 54-67 and col. 8, lines 36-

53); wherein the reconfiguration is based on channel quality measurements (see col. 2, lines 54-67 and col. 8, lines 36-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to avoid cochannel interference in order to improve quality in the wireless system.

Regarding claim 65, Yu does not mention signaling information related to a reconfiguration of the subcarrier block sets in a radio cell/sector from the/its radio cell to at least one adjacent radio cell. Jang discloses signaling information related to a reconfiguration of the subcarrier block sets in a radio cell/sector from the/its radio cell to at least one adjacent radio cell (see col. 2, lines 54-67 and col. 8, lines 36-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to avoid cochannel interference in order to improve quality in the wireless system.

Regarding claim 66, Yu does not mention signaling information related to channel qualities in a radio cell/sector from the/its radio cell to at least one adjacent radio cell. Jang discloses signaling information related to channel qualities in a radio cell/sector from the/its radio cell to at least one adjacent radio cell (see col. 2, lines 54-67 and col. 8, lines 36-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to avoid cochannel interference in order to improve quality in the wireless system.

Regarding claim 67, Jang discloses signaling the information to a control unit in the communication system (see col. 2, lines 54-67 and col. 8, lines 36-53).

Regarding claim 80, Yu does not mention a radio communication system comprising a base station according to claim 69 and a communication terminal in a wireless communication system comprising receiving means for receiving information indicating a subcarrier block assignment and/or a subcarrier block set assignment, and selection means for selecting the signaled assigned subcarrier block and/or signaled assigned subcarrier block set for data transmission. Jang discloses a radio communication system comprising a base station according to claim 69 (see explanation in claim 69) and a communication terminal (see fig. 3) in a wireless communication system comprising receiving means for receiving information indicating a subcarrier block assignment and/or a subcarrier block set assignment (see col. 6, lines 30-56), and selection means for selecting the signaled assigned subcarrier block and/or signaled assigned subcarrier block set for data transmission (see col. 6, lines 30-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Jang to the method of Yu in order to avoid cochannel interference in order to improve quality in the wireless system.

Allowable Subject Matter

6. Claims 56-57, 68 and 78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 56-57 and 68, the prior art of record does not mention measuring the path loss of a communication signal of a communication terminal and the path loss due to interference from adjacent radio cells/sectors for said communication signal, and assigning the

communication terminal to at least one subcarrier block of a subcarrier block set in a radio cell/sector based on said measurement, as specified in the claims.

Regarding claim 78, the prior art of record does not mention measuring means for measuring the path loss of a communication signal of a communication terminal and the path loss due to interference for said communication signal, andassigning means to assign the communication terminal to at least one subcarrier block of one of said subcarrier block sets based on said measurement, as specified in the claim.

7. Claims 74 and 76 are allowed.

Regarding claims 74 and 76, the prior art of record does not mention y/x transmission power levels on average are assigned to one subcarrier block set of corresponding subcarrier block sets, as specified in the claim.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID Q. NGUYEN whose telephone number is (571)272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinsong Hu can be reached on (571)272-3965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Q Nguyen/
Primary Examiner, Art Unit 2617